

REMARKS/ARGUMENTS

Claims 50-69, 72-74, 78-88 and 90-102 are pending in this application. Claims 50 and 80 are amended. Reexamination and early favorable consideration are respectfully requested.

Claims 50 and 80 are amended to more explicitly state that the cap layer recited in those claims has a single or uniform thickness. This amendment finds support at page 10, lines 16-20, and at page 11, lines 9-17, which discuss the possible optical functions of layer 28 described in the application. This discussion in the application makes clear to one of ordinary skill in the art that the thickness of layer 28 is over the extent of layer 28 across a wafer or other substrate.

The outstanding Office Action rejects the claims over a combination of references, with U.S. Patent No. 5,854,126 to Tobben, et al., as the primary reference. Japanese patent publication JP-A 8-288285 is cited as the secondary reference and the below discussion refers to the translation of the '285 publication.

The Office Action identifies planarization layer 16 of the Tobben patent as corresponding to the cap layer recited in the present application. The entire purpose of the Tobben patent is to use the spin-on-glass planarization layer 16 to avoid using chemical mechanical polishing. Tobben patent, col. 2, lines 47-56, col. 1, lines 33-38. The non-uniform, varying thickness of layer 16 is apparent throughout the specification of the Tobben patent and its figures, including FIG. 2. It is the essential purpose of layer 16 that it have a non-uniform, varying thickness.

Planarization layer 16 cannot meet the "cap layer" limitation of the pending claims. For example, claim 50 recites that the cap layer "has a uniform thickness." That is not true of planarization layer 16 of the Tobben patent. Claim

61 recites a cap layer that “has a thickness ... adapted so that ... said cap layer creates destructive interference to reduce reflections.” As explained in the present application at page 11, destructive interference requires a particular thickness or a thickness substantially near that particular thickness. Destructive interference is not produced by layers of widely varying thicknesses like planarization layer 16 of the Tobben patent. In addition, claim 80 recites that the cap layer has “substantially one thickness.” This is not true of the planarization layer 16, which is designed and intended to have varying thicknesses to achieve planarization.

Consequently, independent claims 50, 61 and 80 and their dependent claims distinguish over the Tobben patent.

It would not have been obvious to modify the planarization layer 16 of the Tobben patent to produce the cap layer defined in the pending claims. This is because the varying thickness of the planarization layer 16 is the entire purpose of the planarization layer. As set out in the MPEP 2134.02, it is not obvious to modify a reference in a way that fundamentally changes the way that the reference operates. The claims consequently distinguish over the Tobben patent taken in view of the '285 publication.

The methods described in the '285 publication, and in what was advanced processing at the time of the present invention, were intended to produce densely packed structures and consequently the processing was performed over surfaces made planar through chemical mechanical polishing. The chemical mechanical polishing used in what was then modern processing is the very technology that the Tobben patent sought to avoid using through its planarization film. The teachings of the Tobben patent have no relevance for the processing described in the '285 publication and, for this additional reason, one of ordinary skill in the art would not find it obvious to combine the teachings of the Tobben patent with the '285 publication.

Serial No. 09/546,174
Reply to Office Action of February 22, 2006

In view of all of the above, the claims are believed to be allowable and the case in condition for allowance which action is respectfully requested. Should the Examiner be of the opinion that a telephone conference would expedite the prosecution of this case, the Examiner is requested to contact Applicants' attorney at the telephone number listed below.

A Petition for One Month Extension of Time with \$120 fee is enclosed with this submittal. No additional fees are believed due, however, any fee deficiency associated with this submittal may be charged to Deposit Account No. 50-1123.

Date

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